

Luria Bertani (LB) Agar Miller

Constituents:

1. Peptone/ Tryptone- Provides Carbon, Nitrogen and Amino acids
2. Yeast Extract- Vitamins (Vit. B) and Trace elements
3. NaCl- Provides Sodium ions for Transport and Osmotic balance
4. Agar- Solidifying agent

Making:

1. Measure 40g of LB Agar media in a big cylindrical beaker.
2. Dissolve in 1L of dH₂O.
3. Put the solution on the stirrer with the magnetic stirring bar in it and stir till it completely dissolves.
4. When the powder is completely dissolved, remove the bar from it.
5. Cover the beaker with aluminum foil and autoclave at option 5.
6. After autoclaving, allow it to cool a bit (it shouldn't Start Solidifying) and add 1ml of Amp/Kan.
7. Mix (Shake), wait for bubbles to settle down.
8. Pour the solution on the petridish (Near Flame).
9. Put all the petridish in the cover, label (LBK/LBA) and store in cold room.
10. Successfully performed pouring the gel.

Learn:

Ampicillin- Beta Lactam Antibiotic, Active against both Gram positive and negative organisms due to presence of **-NH₂ group** (helps penetrate outer membrane of GN Bacteria), is a competitive inhibitor of enzyme **Transpeptidase**, required by bacteria for cell wall synthesis.

Kanamycin- Aminoglycoside, Acts on 30S subunit hence interfering with translation
Not used in humans due to ototoxicity (8th nerve), renal toxicity and allergic reactions.